

1. (Currently amended) A cell search method for wideband code division multiple access (WCDMA) communication system, comprising the steps of:

receiving a frame of data having a predetermined number of time slots, each time slot being adjacent to another time slot;

receiving a plurality of data symbols in each respective time slot; and

receiving ~~respectively~~ each of a primary, a secondary and a tertiary synchronization code ~~in parallel over respective channels~~ during a first symbol time in each of said predetermined number of time slots.

2. (Previously presented) A method as in claim 1, wherein the secondary and the tertiary synchronization codes identify a subset of codes.

3. (Previously presented) A method as in claim 2, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of synchronization code elements, the predetermined order corresponding to the subset of codes.

4. (Previously presented) A method as in claim 1, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of common synchronization code elements.

5. (Previously presented) A method as in claim 1, wherein a mobile receiver identifies a first time slot of the frame by the tertiary synchronization code.

Claims 6-12 (Canceled).

13. (Currently amended) A method, comprising the steps of:

transmitting a frame of data having a predetermined number of time slots, each time slot being adjacent to another time slot;

transmitting a plurality of data symbols in each of said time slots; and

transmitting respectively a primary, a secondary and a tertiary synchronization code in parallel over respective channels a primary synchronization channel during a first symbol time in each of said time slots;

transmitting a secondary synchronization code over a secondary synchronization channel during the first symbol time in each of said time slots; and

transmitting a tertiary synchronization code over a tertiary synchronization channel during the first symbol time in each of said time slots.

14. (Previously presented) A method as in claim 13, wherein the secondary and the tertiary synchronization codes identify a subset of codes.

15. (Previously presented) A method as in claim 14, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of synchronization code elements, the predetermined order corresponding to the subset of codes.

16. (Previously presented) A method as in claim 13, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of common synchronization code elements.

17. (Previously presented) A method as in claim 13, wherein the tertiary synchronization code order corresponds to an order of time slots in the frame.

Claims 18-24 (Canceled)

25. (New) A method as in claim 1, wherein the secondary synchronization code and the tertiary synchronization code identify subsets of code, the subsets being disjoint and of the same size.

26. (New) A method as in claim 1, further comprising detecting whether the tertiary synchronization code indicates null, obtaining a frame timing from the detected tertiary synchronization code instead of the secondary synchronization code when the detected tertiary synchronization code indicates not null, and obtaining the frame timing from the secondary synchronization code when the detected tertiary synchronization code indicates null.

27. (New) A method as in claim 13, wherein the secondary synchronization code and the tertiary synchronization code identify subsets of code, the subsets being disjoint and of the same size.

28. (New) A method as in claim 1, wherein the secondary synchronization code and the tertiary synchronization code together provide a group identification, and the tertiary synchronization code alone provides the frame synchronization.

29. (New) A method as in claim 13, wherein the secondary synchronization code and the tertiary synchronization code together provide a group identification, and the tertiary synchronization code alone provides the frame synchronization.